

## WireLock®

### MORE RELIABILITY LOW MATING FORCE AUTOMOTIVE GRADE CONNECTOR SYSTEM

WireLock® is a 1.80mm pitch wire-to-board and flex-to-wire connector system. Its compact design addresses the growing need for space-saving automotive-grade connectors. WireLock® is a double-row connector system offering four coding types with different colors.

The connector has a nominal current carrying capacity of 2A and supports cable wire gauges from 22AWG to 26AWG. WireLock® is available in 10 up to 40 positions in a double row with vertical and horizontal TH and SMT configurations.

- USCAR-T2V2, LV 214 S2 compliant
- Re-flow tin plated reduce mating force
- Four different codings with different colors visual
- Positions from 10 to 40
- Terminal Position Assurance (TPA)
- Connector Position Assurance (CPA)

#### FEATURES

- Re-flow Tin plating terminal
- Current rating 2A per each contact
- Terminal-Position-Assurance (TPA)
- Four different codings with different colors
- Connector positioning assurance (CPA)
- Wire gauge from 22AWG to 26AWG



#### TARGET MARKETS



#### BENEFITS

- Low mating and un-mating force
- Meets higher current performance
- Ensures proper terminal insertion position and retention
- Visual and mechanical mismatching prevention system
- Ensures proper connector mating and locking
- Meet wide gauge application requirement

## TECHNICAL INFORMATION

### MATERIAL

- Board Connector: Copper alloy
- Housing: High Temperature UL 94V-0
- Crimping Terminal: Phosphor Bronze alloy/brass (tin plated)

### ELECTRICAL PERFORMANCE

- Voltage Rating: 48V AC/DC
- Insulation Resistance: 100M $\Omega$  min.
- Contact Resistance: 25m $\Omega$  max. (initial)
- Current Rating: 2A
- Low Level Contact Resistance: < 15m $\Omega$
- Dielectric Withstand Voltage: 1000V AC
- Temperature Rise: +55°C max. for 5.0A

### MECHANICAL PERFORMANCE

- Durability: 10 cycles (tin plated)
- Mating/Un-mating Force: 75N max.
- Terminal Insertion Force: <5N max./pin
- Terminal Retention Force: 20N min. (before testing). 40N min. (after testing)

### ENVIRONMENTAL

- Operating Temperature Range: -40°C to +105°C

### APPROVALS AND CERTIFICATIONS

- USCAR T2V2
- LV 214 S2

### SPECIFICATIONS

- Product Specification:
  - GS-12-1535 (USCAR-2)
  - GS-12-1780 (LV 214 S2)
- PCB Termination: 1.6mm and 2.0mm
- Packaging Specification:
  - GS-14-2668 (header)
  - GS-14-2679 (receptacle terminal)
- Hand Tool Part Number: 10159164-001
- Application Specification: GS-20-0594

### PACKAGING

- PCB Header: Tape and reel or Tray
- Receptacle Housing: Tray
- Crimping Terminal: Reel

### TARGET MARKETS/APPLICATIONS

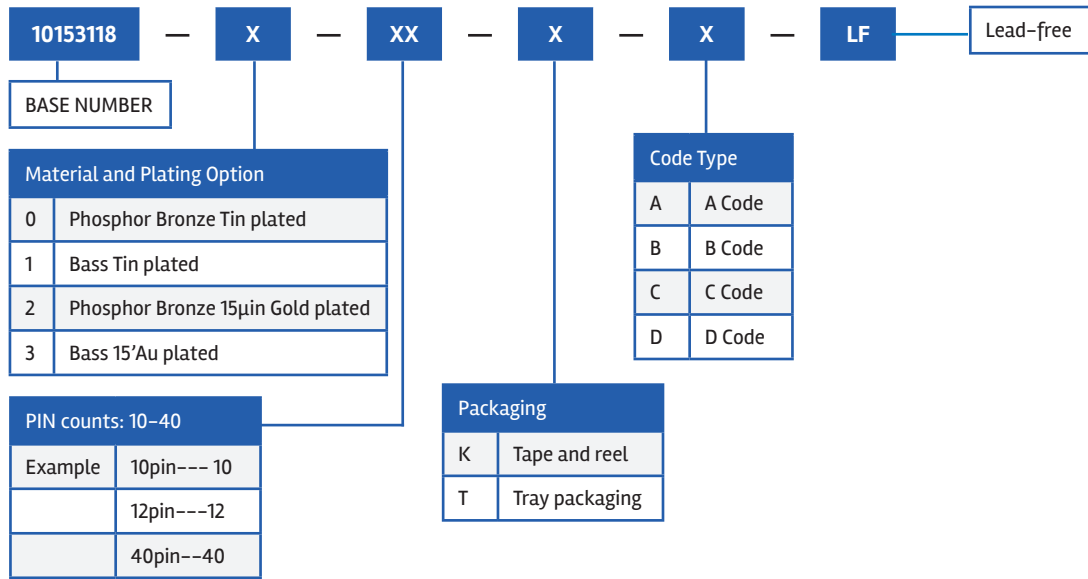


BMS (Battery Management System)  
OBC (On Board Charge)  
MCU (Micro Control System)  
Gateway  
Lighting  
ADAS (Advanced Driving Assistance System)  
RADAR

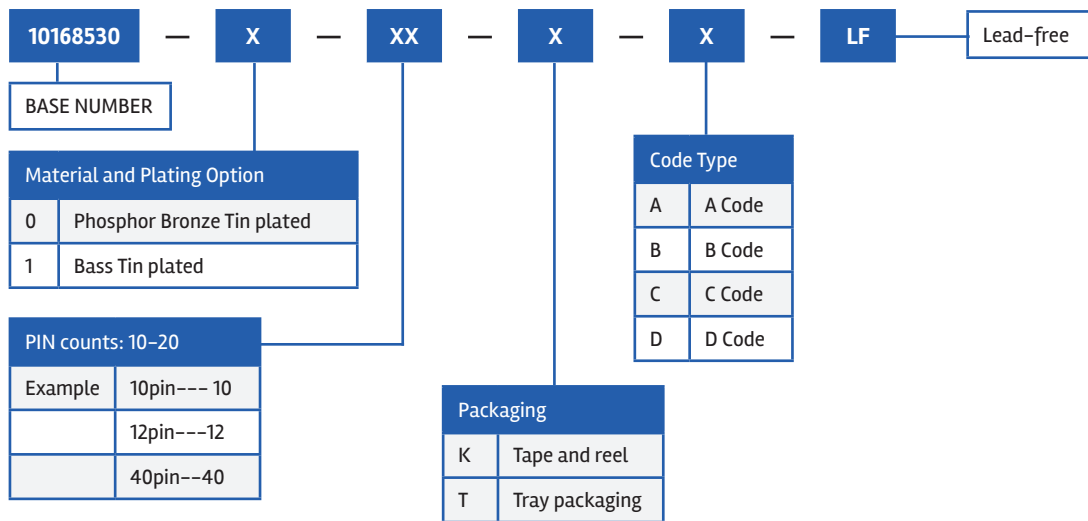


Robotics

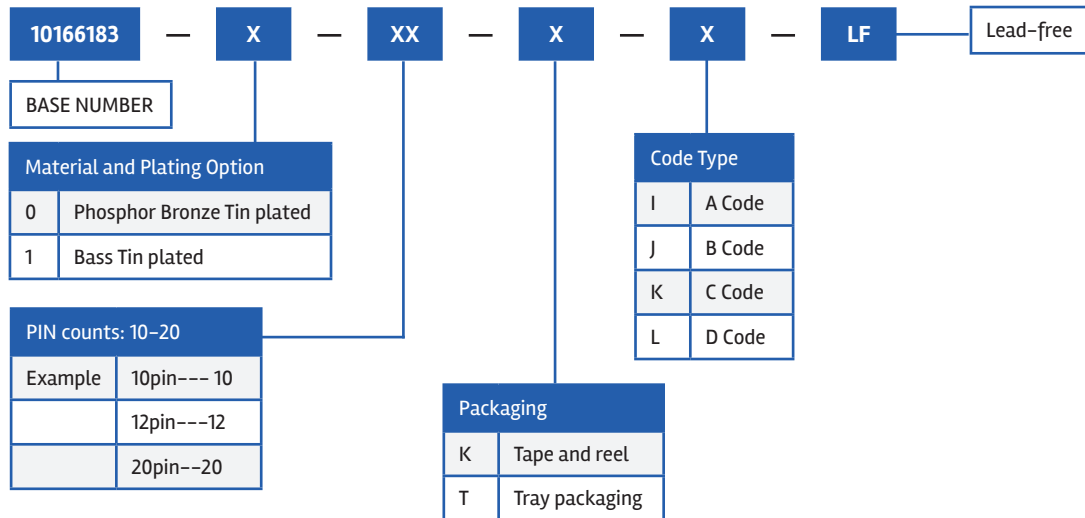
## PART NUMBER SELECTOR—DOUBLE ROW R/A-TH-HEADER (PCB MOUNT)



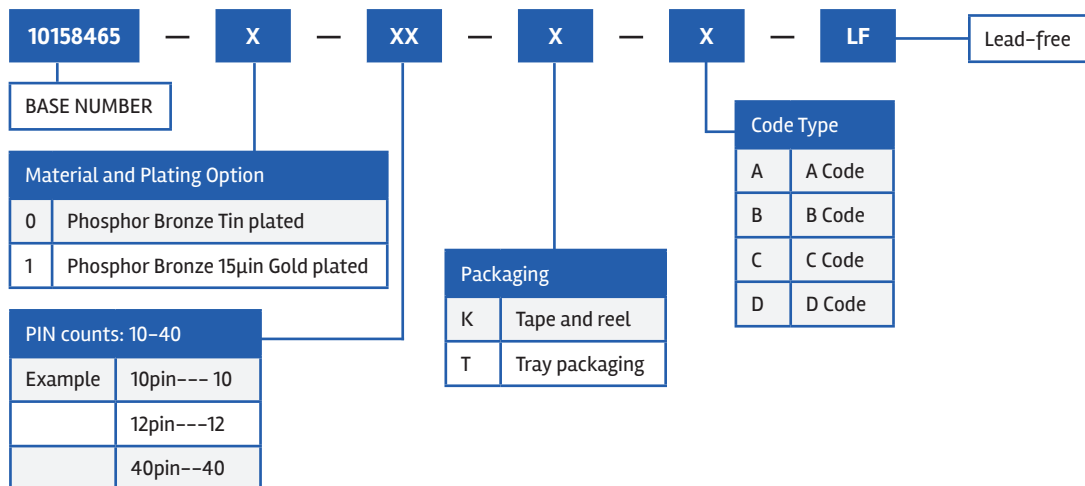
## PART NUMBER SELECTOR—DOUBLE ROW R/A-TH-HEADER (FLEX MOUNT)



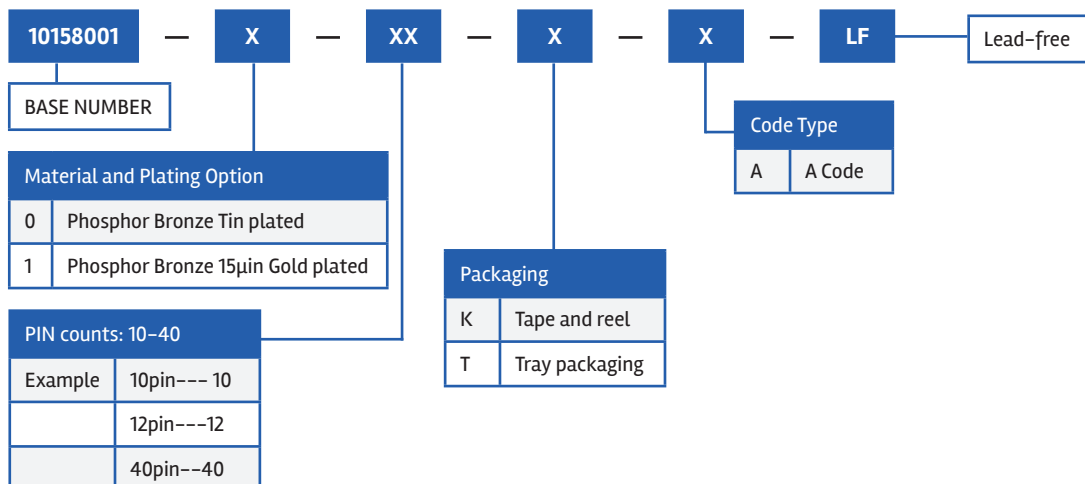
## PART NUMBER SELECTOR—DOUBLE ROW R/A—SMT—HEADER (PCB MOUNT)



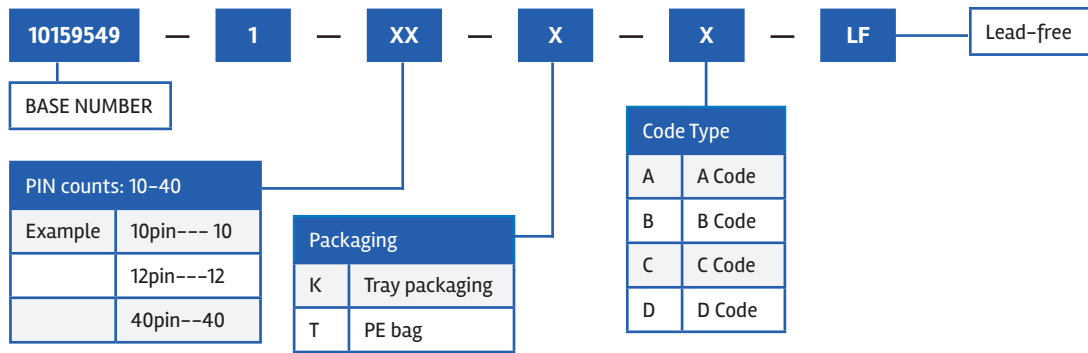
## PART NUMBER SELECTOR—DOUBLE ROW VERTICAL—TH—HEADER (PCB MOUNT)



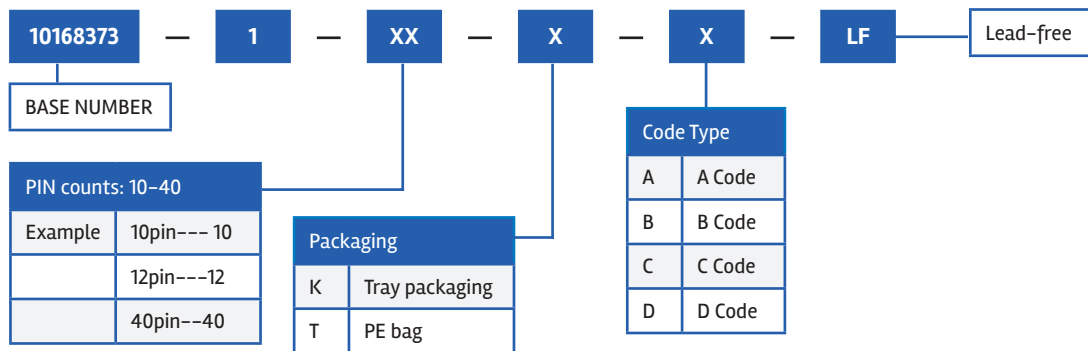
## PART NUMBER SELECTOR—DOUBLE ROW VERTICAL—SMT—HEADER (PCB MOUNT)



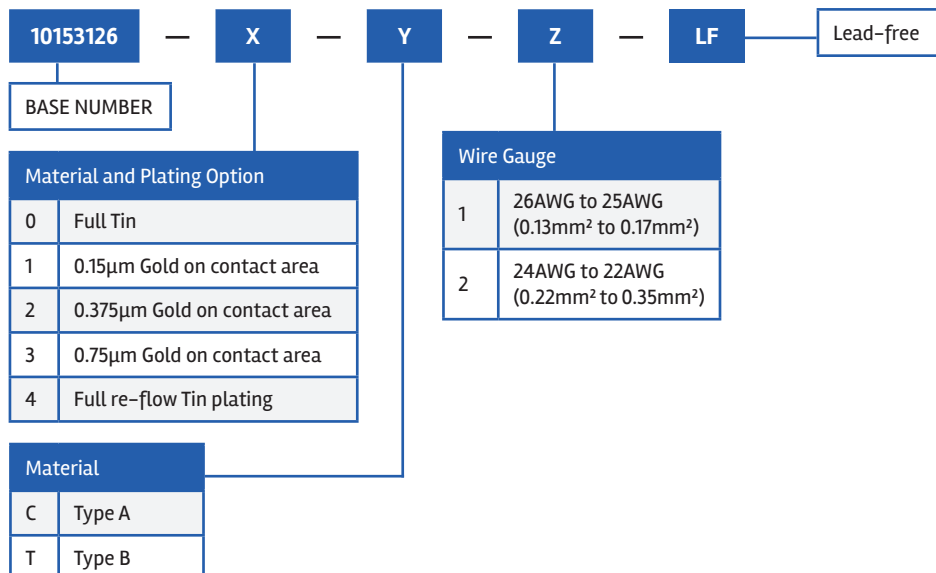
## PART NUMBER SELECTOR–RECEPTACLE (USCAR T2V2)



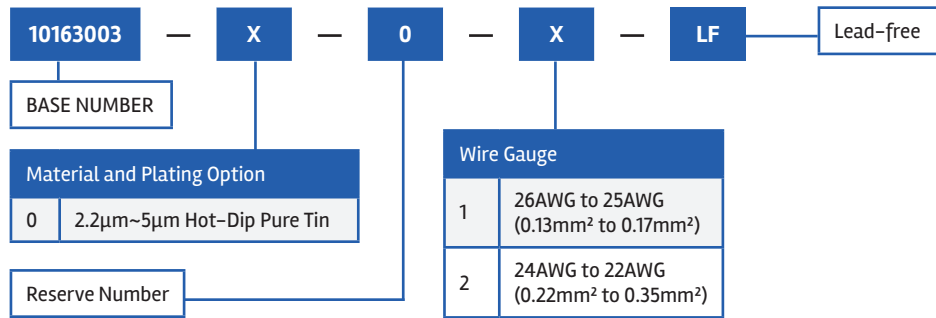
## PART NUMBER SELECTOR–RECEPTACLE (LV214 S2)



## PART NUMBER SELECTOR–RECEPTACLE TERMINAL (USCAR T2V)



## PART NUMBER SELECTOR—RECEPTACLE TERMINAL (LV214 S2)



## HAND TOOL

Hand tool part number: 10159164-001LF  
 Application Specification: GS-20-0594